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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/080,422

02/21/2002

Meir Feder

MS1-1150US

8274

22801

7590

07/01/2008

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EXAMINER

CZEKAJ, DAVID J

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

07/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/080,422	<b>Applicant(s)</b> FEDER ET AL.	
	<b>Examiner</b> DAVID CZEKAJ	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/20/08.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-18 and 37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-18 and 37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3-18, and 37 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 3-18 recite the limitation "the portion" in line 4 of claim 1. "Portion" is also seen twice in line 3 of the same claim. It is unclear which portion "the portion" is referring to. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucher et al. (6675387), (hereinafter referred to as "Boucher") in view of van der Schaar et al. (6785334), (hereinafter referred to as "Schaar") in further view of Hazra (6510553) in further view of Xia et al. (6901155), (hereinafter referred to as "Xia").

Regarding claim 1, Boucher discloses an apparatus that relates to preparing multimedia data for transmission (Boucher: column 1, lines 22-24).

This apparatus comprises "determining a quality for a part of an image based on

a rate of change associated with the portion of the image” (Boucher: column 11, lines 24-29, wherein the one quality is the higher or lower quality, the part of the image is the background or text, wherein the rate of change is the object being static) and “transmitting the image part using the transport” (Boucher: figure 3, wherein the transport is the cable network). However, Boucher fails to disclose generating and transmitting enhancement data. Schaar teaches that prior art processing systems fail to efficiently utilize network bandwidth (Schaar: column 1, lines 42-45). To help alleviate this problem, Schaar discloses “generating and transmitting a data block of image enhancement data if the image part did not change in a time period” (Schaar: figure 3A, column 4, lines 10-14, wherein the enhancement data is the enhancement layer, the image part not changing is the same image being displayed, i.e. the image does not change to the next image). Hazra teaches that prior art systems won’t allow the user to give streams a priority ensuring a suitable quality for display (Hazra: column 2, lines 25-33). To help alleviate this problem, Hazra discloses “wherein the generating and transmitting are not performed when the portion of the image changed during the time period” (Hazra: column 7, lines 25-50, wherein the image change is switching the primary source, wherein the secondary source only receives the base layer). Xia teaches “transmitting enhancement data for an image, wherein the portion of the image is less than the entire image, the portion being determined by changes occurring in the portion during image generation” (Xia: column 7, lines 44-52, wherein the foreground blocks are enhanced. By

determining the foreground and background blocks, Xia is determining the portions of the image that change (since the background blocks are normally static)). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Boucher, add the enhancement schemes taught by Schaar and Hazra, and add the processing taught by Xia in order to obtain an apparatus that efficiently utilizes available network bandwidth.

Regarding claim 3, Boucher discloses “generating without decoding previously used DCT coefficients” (Boucher: column 11, lines 1-6).

Regarding claims 4-7, although not disclosed, it would have been obvious make the static image not change for many frames or many seconds (Official Notice). Doing so would have been obvious in order to allow enough time to pass to verify the image was in fact static.

Regarding claim 8, although Schaar discloses transmitting less enhancement data once a target is met (Schaar: figure 3), Schaar fails to disclose not transmitting enhancement data once a quality target is met. Although not disclosed, it would have been obvious not to transmit data once a quality is met (Official Notice). Doing so would have been obvious in order to conserve network resources.

Regarding claim 10, Boucher discloses “the transport comprises an MPEG-type transport” (Boucher: column 11, lines 29-31).

Regarding claim 11, Boucher discloses “decoding the image using a standard MPEG decoder” (Boucher: column 12, lines 60-61).

Regarding claim 12, Boucher discloses “calculating a synchronization frame for the transport by mapping a representation of the image to a representation of the image as it should be” (Boucher: column 13, lines 30-40, wherein the calculation of the synchronization frame is the pulling together of the macroblocks, the mapping is the updating).

Regarding claims 13-14, Boucher discloses “associating with the image an indication of a suitable target/initial quality for the image part” (Boucher: column 11, lines 26-29, wherein the association is associating the background with a low quality).

Regarding claim 15, Boucher discloses “associating with the image an indication of an expected rate of change of the part” (Boucher: column 11, lines 23-25, wherein the expected rate of change is the background remaining static).

Regarding claims 16-17, Boucher discloses “generating the indication by an image generator” (Boucher: column 10, lines 24-25, wherein the image generator is the MPEG encoder).

Regarding claim 18, although not disclosed, it would have been obvious to generate the indication by analyzing a past profile of changes (Official Notice). Doing so would have been obvious in order to successfully detect errors by having a tolerable range of motion values.

3. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soundararajan (7039113) in view of Schaar et al. (6785334), (hereinafter referred to as "Schaar") in further view of Xia et al. (6901155), (hereinafter referred to as "Xia").

Regarding claim 37, Soundararajan discloses "a first portion of an image is distinct from the second portion of the image" (Soundararajan: figure 2), "the first and second portion have first and second quality levels" (Soundararajan: figure 2; column 4, lines 50-54), "a first and second data block each corresponding to the first and second portions of the image" (Soundararajan: figure 2; column 4, lines 50-54) and "such that an improvement in quality between the first original and first new level is greater than improvement between the second original and second new" (Soundararajan: column 4, lines 50-60, wherein the enhanced region has a greater improvement in image quality). However, this apparatus lacks the comparing and changes as claimed. Schaar teaches that prior art processing systems fail to efficiently utilize network bandwidth (Schaar: column 1, lines 42-45). To help alleviate this problem, Schaar discloses "determining a first and second portion degree of change by comparing the data block in the second frame to the data block in the first frame, wherein the degree of change provides a representation of how different the portion of the image resulting from the second from is from the first portion" (Schaar: figure 1; column 3, lines 5-20, wherein the residual image provides the degree of change), and "encoding a third frame based on the two analysis's wherein the third frame comprises a first and second data block that correspond

to the first and second portions of the image" (Schaar: figures 1-3). Xia teaches "identifying changes in a first and second portion by utilizing changes occurring in the first and second portions" (Xia: column 7, lines 44-52, wherein the portions are the foreground and background). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Soundararajan, add the comparing taught by Schaar, and add the identification taught by Xia in order to obtain an apparatus that utilizes the entire network bandwidth.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CZEKAJ whose telephone number is (571)272-7327. The examiner can normally be reached on Mon-Thurs and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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